

OPTIMIZED DATA TRANSFER AND STORAGE ARCHITECTURE FOR MPEG-4 MOTION ESTIMATION ON MULTI-MEDIA PROCESSORS

Abstract of the Disclosure

The invention presents video information stream encoding methods used in applications of a data storage and transfer design methodology for data-dominated applications. The invention relates to video encoding methods with variable video frames designed such that the digital system on which the methods are implemented, consumes a minimal of power, during their execution and still obtain excellent performance such as speed compliance. The resulting video information stream encoding methods can be mapped on different processor architectures and custom hardware. The methods enable combined low power consumption, reduced bus loading and increased performance to achieve speed compliance. The encoding methods are essentially based on block-based motion estimation and grouping of motion estimations of various video frames.